

SEP 12 1993

Newsletter



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GEOLOGICAL SOCIETY OF MINNESOTA NEWS

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Summertime And The Livin' Is.....Wet!

It isn't bad enough that with all the rain my basement has leaked water, and my house is starting to emit odors resembling a stagnant bog.

As Murphy's Law says, "If something can go wrong, it will!" The evening of August 9, precisely at 7:10 p.m., my air conditioner decided it had had enough and burned out. The Board members were due to meet at my house in 20 minutes. Of course, those "plucky GSM folks" (as I like to call our Society members) were not deterred by a little warm, moist air, and happily ate their muffins and did their Board duties.

Three director positions are open on the Board for 1994. Dee Schmalz's term expires this year, and Dwight Robinson and I have decided not to pursue another term, but instead to expend our energies on the News and devote lots of time learning more about Geology. Doug Zbikowski, a new member, was in attendance at the meeting and accepted the nomination to fill one of the spots.

If you have someone in mind who you feel would be interested in filling a position on the Board, give me a call and I'll strong-arm...I mean...try to convince him or her to become active. Or you may surprise your candidate with a nomination from the floor at the Annual Meeting. That meeting will be held September 27 at the Old Country Buffet in Maplewood--socializing and eating starting at 5:30 p.m. and the meeting at 7 p.m.

The State Fair opens August 26, and as of this writing, there are still spots open to work the booth. (It really isn't work!) Call Fran Corcoran, 724-2101, to volunteer if you haven't already been contacted.

The Fair booth is our best public relations vehicle and does generate new members. A shift requires only four hours, and you can visit the exhibits on your way into the Fair or perhaps visit the Midway on your way out. I had the thrill of my life there last year. I happened by the bungee jumping arena and since I'd not had the pleasure of witnessing this sport, I hung around for awhile.

I learned that those adventurous folks (crazy, I call them) were paying \$75 to plunge off a scaffold with nary more than a cord around their ankles. I thought I'd rather tame a lion myself.

The lecture program is printed, and you can get your copy early by visiting the Fair booth. The fall quarter lectures (Oct. 4 - Nov. 29) will be held in the Physics Building, Room 166. Winter quarter rooms have not been assigned yet.

Jan Mitchell reports that the next two mini-tour brochures went to the printer for mock-up. You can get a copy of "Fire and Ice," the North Metro Mini Tour, (first tour) by calling Jan at 224-3242.

A Continuing Education Units (CEU) form was approved by the Board. If you would like to earn CEU credits, ask for a signed copy of the form when you attend a lecture or field trip.

Speaking of plucky people, so far we have had two very successful, albeit wet, field trips. It rained during both trips, of course. Are you surprised? The first day of the Alexandria Moraine trip we "swam" from field stop to field stop...and got soaked to the skin. That is, those of us who haven't yet purchased body-covering rain gear got a bit soggy. I have to admit, though, all that rain has created beautiful, lush countryside in and around Glacial Lakes Park. It was breathtaking!

Well, heck--it didn't start to rain on the Hudson trip until we had all gathered in the parking lot that morning. I think I have some great photographs of the colorful umbrellas following our fearless leader down a path.

Dick Uthe and Walt Blowers are out West this summer mapping our two week trip for next year. They will return sometime in September.

The summer picnic and Board meeting was held in June at George and Goldie Johnson's place. The food was delicious, the Board meeting short, and

George took a few of us for a boat ride on the lake. And it rained! We did get to eat on the patio and take a boat ride despite a cloudburst.

To wrap up this dissertation, I'd like to mention that there is always a need for volunteers on the various committees. Committee work is a good way to get to know people. We especially need some new folks on the Field Trip Committee, as some of us presently on the committee would like to take a break. This committee requires time and dedication, but it's a heck of a lot of fun. You get to meet and talk to lots of interesting people.

The 1994 Field Trip Committee will only need to plan and organize three trips, since Dick and Walt will have the two-weeker planned.

Keep dry! See you at the Fair!!!!

Judy Hamilton
President

Jurassic Park: The Movie

I read the book "Jurassic Park" one frigid weekend in February, 1992, and I could almost feel the hot breath of the dinosaurs. At the end, there was the clear "smell" of sequel, but more exiting was the prospect of the movie which had by then become more than a gleam in the author's (Michael Crichton) eye. If movie matched book (a tall order), a real cinematic roller coaster ride was in the offing.

Movie, unfortunately, didn't match book, but it's no fault of the dinosaurs who are the clear stars of the show. Yet surprising as it seems, they occupy a mere 6 1/2 minutes. As I watched the first preview screening, things didn't seem quite right. The chomping "Compy" on the beach had been replaced by a cage full of raging 'raptors. Fair enough. Raging raptors in digital sound immediately engage the viewer.

The second time through, I knew what I found so annoying. It was the characters (or lack of characters) playing the humans. Despite the settings and some terrific music, the moments of greatness are almost all reserved for the dinos. From the phony looking raptor bones at Alan Grant's excavation site to the out of joint ice cream social between John Hammond and Ellie Sattler in the deserted park visitor center, the characters have about as much charisma as talking cardboard.

You might also wonder why the sick Stegosaurus in the book "evolves" into a Triceratops in the movie. A better question might be why the Triceratops sequence at all. It's an interlude that goes nowhere. However, it is the only part of the movie where a dinosaur rivals humans for character development. Having said all that, I urge everyone to see Jurassic Park. Computer graphics bring the dinosaurs to life in a way that you have to see to believe. From the stampeding Gallimimus to a furious T. rex doing a raptor toss, the dinos are worth the price of admission. And you will have witnessed a watershed event in the history of cinematography. Godzilla, are you watching?

Submitted by
Dwight Robinson

Curating Your Rocks, Minerals And Fossils

By Alan M. Cvanicara
(Earth Magazine July, 1992)

This is the second of a two-part series. The first part was published in the May issue of the News. The article is reprinted by permission of the publisher. Copyright 1992 by Kalmbach Publishing Co.

Cataloging. To catalog, you assign numbers to specimens to keep track of them and avoid mixing those from different localities. Assign a number to each specimen or a number to all similar specimens from the same site and level within a rock layer. The easiest system assigns "1" to the first specimen or related group of specimens and numbers others consecutively.

Think of where and how to place the catalog number on each specimen. It's best to write the number in an inconspicuous spot so as not to deface the specimen or detract from its beauty should you wish to display, trade, or sell it. For smooth, light-colored specimens, you might write with a black, waterproof extra-fine or ultra-fine marker pen, or use a fine drawing pen and permanent black ink. For smooth, dark-colored specimens, write on a dab of white paint applied to a hidden area. On rough or porous rocks, firm up the surface for numbering with a little hardener. Place the tiniest specimens in vials or jars with a slip of paper bearing their number, or put a label on the container.

For a catalog, I have found that a card file works better than the traditional ledger. For greatest versatility, use a double card file, one arranged alphabetically by mineral, rock, or fossil name and the other numerically be consecutive catalog numbers. Each card lists the number, name, number of specimens, age and rock formation, collecting site, date of collecting, donor, identifier, remarks, and owner. A card-file system allows you to keep your documentation up to date easily. When you upgrade your collection, the replaced specimen and its data cards may be passed along to a beginning collector, school, nature center, or museum.

Of course, you can check out the ledger-type systems too. Prepared systems are commercially available; perhaps you will prefer to fill in the blanks. A computer also expedites record-keeping. You devise a catalog database using the same information recommended for a card file. Computer-generated labels, simple yet attractive, enhance both the storage and display of your collection.

Storing. Store your cataloged specimens, ideally, in cabinets with shallow drawers. You can sometimes buy these cabinets at used-furniture stores or garage sales. You may purchase them from geological supply firms or even build them yourself.

Place specimens with the same catalog number in cardboard or plastic trays with a label bearing the same number and name as on the catalog file card. Systematically arrange the trays with specimens, alphabetically by name and numerically by catalog number within each named group.

You may store your collection in boxes, too. The difference between "before" and "after" is that the latter are not miscellaneous containers of hodgepodge specimens. Choose boxes of uniform size that stack well. Paint them or cover them with paper. Put related items in each box and label it appropriately.

Displaying. Here is the fun of collecting. You enjoy the beauty of the pieces and the conversations they inspire. Be discriminating in your choices. Select only those specimens for display that are likely to elicit an "Oh, my!" response. Why bother with preparing, mounting, and specially labeling ho-hum specimens?

For ideas on display specimens, visit museums, shows, or experienced collectors. You will see a wide variety of techniques, but most popular is the use of a glass-fronted display case, often with glass on the sides and top as well. Place specimens directly on shelves, or mount them on Styrofoam, plastic, wood or metal bases. Use kneadable plastic adhesive (found in stationery or office supplies) to hold them in place. Each specimen deserves a neatly lettered label.

When you view other collections for display ideas, take note of the lighting, which can add interest and extract inner beauty from a collection. If you invest in a display case, you might as well complete the display with effective lighting. A lighted china cabinet with additional shelves makes an outstanding showcase.

To show off large pieces, place them around your home or workplace like art objects. Tables, window sills, fireplace mantels or hearths, and book

shelves are choice locations. Treat small pieces like knickknacks. Shadow boxes with many small compartments designed for miniatures hold minerals just as effectively. You can stack transparent plastic boxes creatively and keep dust off your earthly treasures.

So if you have any minerals, rocks, or fossils tucked away in obscurity, bring them to light. Reap the hidden benefits. Besides tidying one part of your basement or attic (thereby feeling orderly), you will bring back pleasant memories of when and where you found your souvenirs. You will learn geology fast, and you will collect more wisely on your next trip.

Alan M. Cvanara, retired professor of geology at the University of North Dakota, authored A Field Manual for the Amateur Geologist (Prentice-Hall, 1985), At the Water's Edge (John Wiley, 1989), Sleuthing Fossils (John Wiley, 1990), and more than 50 professional papers in paleontology and stratigraphy.

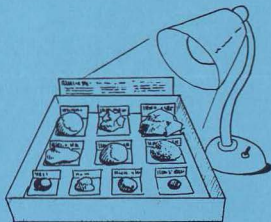


Illustration by Bill Melton

GEOLOGICAL SOCIETY OF MINNESOTA

Program 93/94

- 7:30 P.M. Monday Evenings
- U of M Minneapolis Campus
- Building/Room - See Below

28 Sep 92 Annual Meeting - Old Country Buffet, Maplewood
Dinner: 5:30 P.M.; Meeting/Program 7:00 P.M.

JEWELS OF THE LANDSCAPE - - GEOLOGIC TOURS OF OUR NATIONAL PARKS

- 4 Oct 93 **Voyageurs National Park, Minnesota**
Dave Southwick, Minn. Geol. Survey (Physics/Rm 166)
- 19 Oct 93 **Acadia National Park, Maine**
Barbara Lusardi, Minn. Geol. Survey (Physics/Rm 166)
- 25 Oct 93 **LAB - Igneous Rock and their Minerals**
Walt Blowers, U of St. Thomas & Dick Utthe, U of Minn. (Building/Room TBA)
- 1 Nov 93 **Great Smoky Mountains National Park, Tennessee & North Carolina**
Peter Hudleston, U of Minn. (Physics/Rm 166)
- 15 Nov 93 **Olympic National Park, Washington**
Paul Myers, U of Wisconsin, Eau Claire (Physics/Rm 166)
- 29 Nov 93 **Mammoth Cave National Park, Kentucky**
Calvin Alexander, U of Minn. (Physics/Rm 166)
- 3 Jan 94 **Banff & Jasper National Parks, Alberta & British Columbia**
Shelby Boardman, Carleton College (Building/Room TBA)
- 10 Jan 94 **LAB - Sedimentary and Metamorphic Rocks & Their Minerals**
Walt Blowers, U of St. Thomas & Dick Utthe, U of Minn. (Building/Room TBA)
- 24 Jan 94 **Badlands National Park & Black Hills area, South Dakota**
John Craddock, Macalester College (Building/Room TBA)
- 7 Feb 94 **Arches & Canyonlands National Parks, Utah**
Mark Johnson, Gustavus-Adolphus College (Building/Room TBA)
- 21 Feb 94 **Carlsbad Caverns, New Mexico National Park and
Guadalupe Mountains, Texas National Park**
Jim Welsh, Gustavus-Adolphus College (Building/Room TBA)
- 28 Feb 94 **LAB - Reading Topographic Maps**
Walt Blowers, U of St. Thomas & Dick Utthe, U of Minn. (Building/Room TBA)
- 7 Mar 94 **Big Bend National Park, Texas**
Jim Welsh, Gustavus-Adolphus College (Building/Room TBA)
- 21 Mar 94 **Death Valley National Monument, California**
Mary Savina, Carleton College (Building/Room TBA)
- 4 Apr 94 **Point Reyes National Seashore, California**
John Craddock, Macalester College (Building/Room TBA)
-
- 26 Apr 93 **Mary R. Kimball Memorial Banquet & Address (Location TBA)**
Merging Art & Science in Geology, Dan Varner, Social Vertebrate
Paleontology

GEOLOGICAL SOCIETY OF MINNESOTA



WANT TO LEARN MORE ABOUT GEOLOGY?

- History and the structure of the earth
- Surface features and movements
- Fossils and mineral resources
- Minnesota's place in earth history
- Human impact on geology

The **GEOLOGICAL SOCIETY OF MINNESOTA** presents professional, illustrated lectures for amateurs from all walks of life.

Our lecturers share their enthusiasm for all aspects of geology from the "Big Bang" up to the present ... and beyond. Lectures are free and open to the public.

- We share a common interest in geology.
- Expertise is strictly optional!

WE MEET: OCTOBER - APRIL

7:30 P.M. Mondays
University of Minnesota, Minneapolis Campus

IN ADDITION, WE OFFER:

- Thirty-three geological markers throughout Minnesota
- Extra sessions for special learning experiences
- Metro mini-tour guides of geological features
- Annual exhibit at the State Fair

MEMBERS ENJOY:

- Guided field trips - state-wide and national
- Fall annual meeting and spring banquet
- Quarterly newsletter
- Annual Roster of members
- Opportunities to meet others who share your interest

PLEASE JOIN US!!!!

OFFICIAL ADDRESS: Geological Society of Minnesota
2040 Laurel Avenue
St. Paul, MN 55104
(612) 645-3553



GEOLOGICAL TIME

Period or epoch and its length		Beginning years ago
Quaternary Period	Holocene Epoch 10 thousand years	10 thousand
	Pleistocene Epoch 1 1/2 million years	2 million
	Pliocene Epoch 4 1/2 million years	5 million
	Miocene Epoch 19 million years	24 million
Tertiary Period	Oligocene Epoch 13 million years	37 million
	Eocene Epoch 12 million years	58 million
	Paleocene Epoch 8 million years	66 million
	Cretaceous Period 78 million years	144 million
Mesozoic Era	Jurassic Period 64 million years	208 million
	Triassic Period 37 million years	245 million
	Permian Period 41 million years	286 million
Paleozoic Era	Pennsylvanian Period 34 million years	320 million
	Mississippian Period 40 million years	360 million
	Devonian Period 48 million years	408 million
	Silurian Period 30 million years	438 million
	Ordovician Period 67 million years	505 million
	Cambrian Period 65 million years (?)	570 million (?)
	Precambrian Time Almost 4 billion years (?)	4 1/2 billion (?)



MEMBERSHIP: Our membership year begins on October 1.

GEOLOGICAL SOCIETY OF MINNESOTA

Individual \$ 15 0
Couple 20 0
Sustaining 30 0
Supporting 50 0
Guarantor 100 0
Student (Full time) 5 0

SEND TO: Fran Corcoran
4105 - 41st Ave. S.
Minneapolis, MN 55406
(612) 724-2101

Name _____ Phone _____
Address _____ Zip Code _____

Job Descriptions

Following is a synopsis of the duties of the GSM Board of Directors. Take a moment to consider becoming an active member. You are not required to have a degree in business to participate on the Board--just an interest in the Society's continuing success as an organization. The Society cannot be successful without its directors and committees.

Directors: The Directors are elected from the membership by a majority vote of members present at the Annual Meeting. It is the duty of the Directors to manage the affairs of the Society, and for each Director to serve on a committee or committees as needed. The term of office for Directors shall be two years, commencing January 1 and terminating December 31 of the second year.

Officers: Officers shall consist of a President, Vice President, Secretary and Treasurer, elected by the Board from the Board membership and shall officiate as follows:

The President shall preside at all meetings of the Society and the Board of Directors.

The Vice President shall perform the duties of the President in his or her absence.

The Secretary shall record all proceedings of the Board, send copies of minutes to each Board member for action at the next meeting, and see that notice of all meetings is given.

The Treasurer shall be custodian of all funds due or belonging to the Society, and shall make a written report and accounting to the Board at each regular meeting, and to the membership at the Annual Meeting.

Committees

A committee member need not be an officer or director of GSM, but any Society member with an interest in serving on a committee. A brief description of each committee follows:

Field Trips: Makes all plans and arrangements necessary to present a series of field trips, usually four, each year.

Program-Lectures: Makes plans and arrangements necessary to present a series of lectures and accompanying laboratory meetings during the year.

Membership: Solicit new members; receive membership applications, keep a current file of memberships and publish a yearly roster of all members.

Newsletter: Publish and mail to each member-family news of Society members and events, and other items relating to the Earth Sciences.

Exhibits: Collect appropriate material, including literature, photographs, maps and specimens for exhibit at such shows as the Minnesota State Fair.

Social: Make arrangements for the Banquet and Annual Meeting and any other social events.

Publicity: Publicize the activities of the Society in the appropriate media or wherever an interest in Earth Sciences may exist.

Public Service: Promote an awareness and interest in the study of Geology in schools and among the general public.

History and Archives: Collect, catalog, and file material relating to the history and activities of the Society.

THE GEOLOGICAL SOCIETY OF MINNESOTA EXHIBIT

MINNESOTA STATE FAIR

August 26 - September 6

Visit or Volunteer - Education Building - State Fair Grounds

Look for more exciting new features in upcoming issues of your newsletter.

The purpose of this newsletter is to inform members and friends of the activities of the Geological Society of Minnesota. NEWS is published four times a year - Feb. 15, May 15, Aug. 15, Nov. 15. Deadline for article submission is the 1st day of the month of publication.

Officers: Judy Hamilton, Pres.
Conrad Nelson, V. Pres.

Dwight Robinson, Secy.
Ed Huppler, Treas.

Directors:

Tom Casey
Tom Lonky
Dee Schmalz
Eva Selander
Galen O'Connor

NEWS Editors: Dwight Robinson
Judy Hamilton

Membership Chair and Information: Fran Corcoran 724-2101

Judy Hamilton
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First Class

PLEASE FORWARD

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This season's color: Lunar Blue